

DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CEACAM-6/CD66c in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CEACAM-1, -3, or -5 is observed. By flow cytometry, no cross-reactivity with CEACAM-3, -4, -7, or -8 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 439424
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human CEACAM-6/CD66c Lys35-Gly320 Accession # P40199
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

**DATA**

<p><b>Flow Cytometry</b></p> <p><b>Detection of CEACAM-6/CD66c in Human Blood Granulocytes by Flow Cytometry.</b> Human peripheral blood granulocytes were stained with Mouse Anti-Human CEACAM-6/CD66c APC-conjugated Monoclonal Antibody (Catalog # FAB3934A, filled histogram) or isotype control antibody (Catalog # IC003A, open histogram). View our protocol for <a href="#">Staining Membrane-associated Proteins</a>.</p>	<p><b>Flow Cytometry</b></p> <p><b>Detection of CEACAM-6/CD66c in HEK293 Human Cell Line Transfected with Human CEACAM-6/CD66c and eGFP by Flow Cytometry.</b> HEK293 human embryonic kidney cell line transfected with (A) human CEACAM-6/CD66c or (B) irrelevant transfectants and eGFP was stained with Mouse Anti-Human CEACAM-6/CD66c APC-conjugated Monoclonal Antibody (Catalog # FAB3934A). Quadrant markers were set based on control antibody staining (Catalog # IC003A). View our protocol for <a href="#">Staining Membrane-associated Proteins</a>.</p>
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**PREPARATION AND STORAGE**

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**BACKGROUND**

Carcinoembryonic Antigen-related Cell Adhesion Molecule 6 (CEACAM-6), previously called Nonspecific Cross-reacting Antigen (NCA) or CD66c, is one of seven human CEACAM family members within the immunoglobulin superfamily (1-4). In humans, CEACAMs include type I transmembrane proteins (CEACAM-1, -3, and -4) and Glycosylphosphatidylinositol (GPI)-linked molecules (CEACAM-5 through -8) (1). There is no human CEACAM-2. Human CEACAM-6 is a 90 kDa, GPI-linked membrane protein that contains a 34 amino acid (aa) signal sequence, a 286 aa extracellular domain (ECD), and a 24 aa hydrophobic C-terminal propeptide. The GPI membrane anchor is attached at the C-terminus following cleavage of the propeptide. CEACAM-6 contains one N-terminal V-type Ig-like domain (N domain), followed by two C2-type Ig-like domains (2-4). It shows considerable glycosylation, including (sialyl) Lewis<sup>X</sup>, which mediates binding to E-Selectin, Galectins and some bacterial fimbriae (1, 2). Mature human CEACAM-6 shows 84%, 85%, 80%, 87% and 51% aa identity to the equivalent extracellular regions of human CEACAMs -1, -5 (CEA) and -8, rhesus CEACAM-2, and bovine CEACAM-6, respectively. CEACAM-6 is expressed by granulocytes and their precursors. Activation enhances surface expression by mobilizing CEACAM-6 from storage in azurophilic granules (5, 6). It often shows aberrant expression in acute lymphocytic leukemias (10). CEACAM-6 is also expressed in epithelia of various organs and is upregulated in pancreatic and colon adenocarcinomas and hyperplastic polyps (7, 8). Over-expression confers resistance to adhesion-related apoptosis (anoikis) in tumor cells (8, 9). CEACAM-6 is an intercellular adhesion molecule, forming both homotypic, and heterotypic bonds with CEACAM-1, -5 and -8 through interaction of the V-type Ig-like domains (11, 12). Cross-linking of neutrophil CEACAM-6 augments Integrin  $\alpha_v\beta_3$  and  $\beta_2$ -mediated adhesion, apparently by Src and Caveolin-mediated inside-out Integrin activation (8, 13, 14).

**References:**

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